Wales: Trip Report for June 23, 2018

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Trip Report: Response to reported mass stranding at Wales, Alaska - June 2018

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The Alaska Marine Mammal Stranding Network provided a roundtrip ticket from Nome to Wales for June 23, 2018 to better understand the scope and size of an elevated number of dead ice seals reported near Wales. Upon hearing travel was potentially possible; contacted was made immediately with the Native Village of Wales tribal office in order to provide an introduction, an outline of the trip objectives, and to seek permission to conduct a beach survey.

I traveled round-trip Nome-Wales via Ravn Air June 23, 2018. Due to an unexpected departure delay, as well as a reroute through Brevig Mission, ground time at Wales was shortened and detailed documentation of carcasses was unavailable. Upon arrival, a photo of a young ringed seal (WLS-004-18) harvested near Wales May 10, 2018 was provided (Figure 1) as its poor body condition had been of concern. Upon starting a beach survey from Wales, it became apparent that there were more carcasses (seal and seabird) than anticipated.

Figure 1. A young ringed seal (WLS-004-18) harvested May 10, 2018 near Wales. The poor body condition was of concern and it was not used for consumed.

Results of a survey conducted on foot included 48 seal carcasses (Table 1) and 65 seabird carcasses in approximately ½ mile stretch of beach - starting from the south end of the beach to the tank farm at the Native Village of Wales. Documentation of carcasses continued until the returning flight was on the ground and boarding. Of note, there was one live, active, ringed seal on the beach that re-entered the ocean when the survey began (Figure 2).

Figure 2. Live ringed seal pup (STR-168-18) resting at Wales beach June 23, 2018.

Seals

Documented seal carcasses included 12 spotted seals (25%), 17 bearded seals (35%), and 19 ringed seals (40%) (Table 1). Carcasses were in various stages of decomposition and almost all had been heavily scavenged with access typically either through the anus or head region. No fresh carcasses were documented. Estimated age classes of carcasses were primarily pups and non-adults. Tissue samples were collected from 13 seals (Table 2; one bearded seal, two spotted, and ten ringed seals). Samples included intestinal and/or stomach content/liquid for saxitoxin and domoic analysis by the NOAA Wildlife Algal Research and Response Network laboratory (Seattle, WA). The 11 seal stomachs collected were taken to the UAF Northwest Campus laboratory and examined (Table 2). These stomachs contained no recognizable prey items and/or included sand, plastic debris, a pebble, or a wood fragment. Of note, a photo of the stomach contents of the young ringed seal (STR-121-18) that contained 459.7 g sand as well as two pieces (3.8 g) of thin plastic sheeting is provided in Figure 3. Additional skull, liver, kidney, blubber, and reproductive samples collected were provided to the University of Alaska Museum of the north for accredited archive in their Mammals Collection. There they remain accessible to the public for additional research and documentation https://www.uaf.edu/museum/collections/mammal/.

Carcasses intact enough to provide an indication of body condition were found to be primarily poor and/or emaciated (i.e. pelvic bones clearly visible, pronounced skull, blubber layer thin/absent, ribs easily felt by palpating hide).
Photos of the carcasses are provided in three separate electronic files (i.e. bearded seals June 23, 2018 Wales.pdf, ringed seals June 23, 2018 Wales.pdf, and spotted seals June 23, 2018 Wales.pdf).

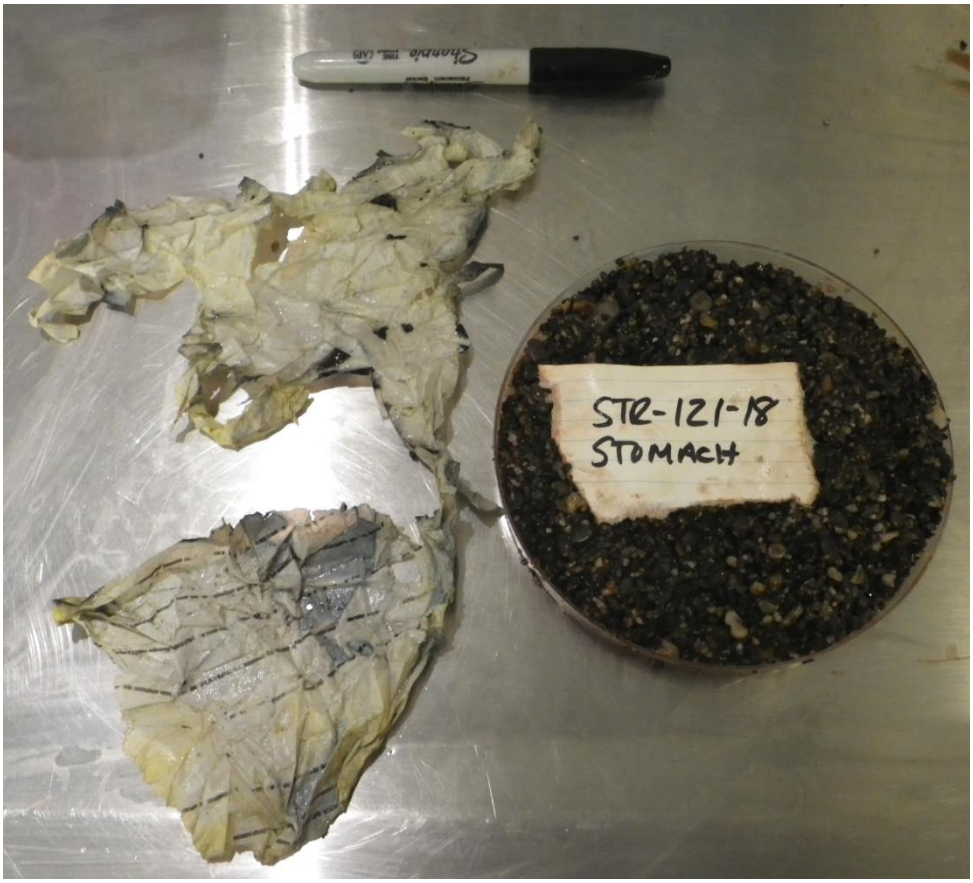

Figure 3. Sand and plastic debris removed from the stomach of a young ringed seal (STR-121-18).

Seabirds

Documented seabird carcasses included 65 seabirds were tentatively identified as one adult pelagic cormorant, 12 black-legged kittiwakes, and 52 adult murres. Seabirds were primarily skeletal - consisting of wings, sternal keel, and/or feet. Two intact emaciated black-legged kittiwakes were collected and provided to the USFWS Office of Migratory Bird Management (Anchorage) for transfer to the USGS National Wildlife Health Center (Madison, WI) for necropsy and disease analyses (ex. avian cholera, saxitoxin / domoic acid, avian influenza, etc.).

Summary

The beach survey conducted June 23, 2018 documented 48 seal carcasses and 65 seabirds along an approximately 0.5 mile length of beach near Wales. More time was

needed to conduct a more thorough examination and specimen collection. It is possible that more carcasses were not documented north of Wales due to the lack of time but residents indicated the majority of carcasses were in the area surveyed. There was a rough estimate of another 5-10 carcasses located north between Wales and the dump site. No seal or seabird carcasses were freshly dead and damage from scavengers / decomposition was extensive in most.

Acknowledgements
Thanks and appreciation to Sean Komonaseak Jr. for acting on his food security, public health, and marine wildlife health concerns –his assistance was invaluable. Airfare to Wales was provided by NOAA Alaska Marine Mammal Stranding Network. Specimens were collected under a Marine Mammal Stranding Agreement between NOAA-DOC and Alaska Sea Grant (Gay Sheffield).

Table 1. Species, sex, identification number, and notes for 48 seals documented on the beach near Wales during June 23, 2018.

SPECIES	SEX	ID	NOTES
RINGED	F	STR-053-18	~61 cm length, stomach empty, poor body condition
SPOTTED	F	STR-054-18	~69 cm length, poor body condition
BEARDED	U	STR-055-18	-
BEARDED	U	STR-057-18	Incomplete, skin and flippers
BEARDED	U	STR-063-18	Scavenged
RINGED	U	STR-074-18	Belly sliced open already, possible harvest related
BEARDED	U	STR-079-18	-
SPOTTED	U	STR-080-18	-
BEARDED	U	STR-081-18	-
SPOTTED	U	STR-083-18	-
RINGED	F	STR-084-18	Possible skin lesions on lower abdomen / rear flippers
BEARDED	U	STR-085-18	-
RINGED	F	STR-088-18	Stomach empty – contained a few particles of rocky grit
BEARDED	F	STR-089-18	-
BEARDED	U	STR-093-18	Poor body condition
BEARDED	M	STR-097-18	-
RINGED	F	STR-099-18	~60 cm length
BEARDED	U	STR-107-18	-
BEARDED	U	STR-109-18	-
RINGED	F	STR-110-18	~87 cm length, stomach empty, had “normal” blubber layer
RINGED	U	STR-116-18	~101 cm length
RINGED	U	STR-117-18	Poor body condition
RINGED	F	STR-118-18	-
BEARDED	U	STR-119-18	-
RINGED	M	STR-121-18	Blubber thickness was ~2 cm, stomach contained 459.7 g sand + 3.8 g plastic debris (2 pieces), colon sample contained 68.6 g sand
RINGED	U	STR-122-18	Poor body condition, claw had 7 bands yet small-bodied seal
RINGED	F	STR-123-18	~83 cm length, empty stomach, poor body condition
SPOTTED	M	STR-124-18	~83 cm length, 34 cm hip girth, empty stomach, poor body condition
SPOTTED	U	STR-126-18	-
SPOTTED	U	STR-127-18	-
RINGED	U	STR-133-18	~70 cm length, 35 cm hip girth, 46.5 cm axillary girth, poor body condition, stomach empty, no parasites in heart
BEARDED	U	STR-135-18	Spots on coat

Table 1. (Continued)

SPECIES	SEX	ID	NOTES
RINGED	F	STR-136-18	~66 cm length, 34 cm hip girth, stomach empty but for one 3 cm fragment of wood (0.9 g), poor body condition
BEARDED	U	STR-138-18	-
SPOTTED	M	STR-140-18	~83 length, 39 cm hip girth, 51 cm axillary girth, stomach empty but for 10.6 g of vegetation (macroalgae)
SPOTTED	M	STR-141-18	~75 cm length, poor body condition
SPOTTED	F	STR-145-18	Poor body condition
RINGED	F	STR-149-18	115 cm length, sternal blubber 3 cm, claw had 8 bands, stomach empty
BEARDED	F	STR-151-18	Multiple spot patterning to fur , poor body condition
SPOTTED	U	STR-152-18	~67 cm length, molting lanugo to proper coat
RINGED	M	STR-153-18	No blubber layer, poor body condition, stomach contained one 0.8 g pebble
BEARDED	U	STR-154-18	-
SPOTTED	F	STR-160-18	~67 cm length, poor body condition
RINGED	U	STR-161-18	-
RINGED	U	STR-162-18	-
RINGED	F	STR-163-18	Molting lanugo to proper coat
BEARDED	U	STR-164-18	No photo
SPOTTED	U	STR-165-18	Photo only

Table 2. Species, identification number, tissues collected, saxitoxin (STX) and domoic acid (DA) samples, and/or status of the stomach collected from 13 seals on the beach near Wales during June 23, 2018. Tissues destroyed in the lab are indicated by *.

Species	Field ID	Tissues collected	STX and DA samples	Stomach status
Ringed	STR-053-18	Intestine*, stomach*	Intestine, stomach	No prey
Spotted	STR-080-18	Skull	-	-
Ringed	STR-088-18	Stomach*	Stomach	No prey
Ringed	STR-110-18	Skull, intestine*, stomach*	Intestine, stomach	Liquid
Ringed	STR-117-18	Intestine*	Intestine	-
Ringed	STR-121-18	Blubber, liver, stomach*, Intestine*	Intestine	Sand/plastic
Ringed	STR-123-18	Stomach*, liver, kidney, intestine*	Intestine	Parasites
Ringed	STR-133-18	Intestine*, kidney, stomach*	Intestine	Empty
Ringed	STR-136-18	Intestine*, liver, kidney, stomach*	Intestine, stomach	Wood fragment
Spotted	STR-140-18	Intestine*, stomach*	Stomach	Vegetation
Ringed	STR-149-18	Intestine*, blubber, skull, stomach*	Intestine	No prey
Bearded	STR-151-18	Stomach*, kidney, ovaries, intestine*	Intestine, stomach	~1 ml semi-solid material
Ringed	STR-153-18	Intestine*, stomach*	Intestine	Pebble